DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-011068 Address: 333 Burma Road **Date Inspected:** 04-Jan-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Li Yang and Wu Zhi Cheng No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No **Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: OBG** Trail Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 5BE

This QA Inspector wrote an Incident Report No. 04-0120F4 TL-15 B278 01-04-09 5BE Longitudinal Diaphragm at PP 34 Cross Beam concerning a CWR without Engineers approval on segment 5BE.

Segment 6BW to 6CW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Transverse Splice Weld for Side Panel Counter Weight Side for Segment 6BW to 6CW. Weld identified as OBW6C-002. The welders are identified as 053609. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2233T. It was observed that the root gap was exceeding the requirement of WPS thus ZPMC QC was having Welding Repair Report B-WR9652 Rev.0.

Segment 6BW to 6CW

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Transverse Splice Weld for Side Panel Corner Assembly Counter Weight Side for Segment 6BW to 6CW. Weld identified as OBW6C-001. The welder is identified as 053609. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2233T. It was observed that the root gap was exceeding the requirement of WPS thus ZPMC QC was having Welding Repair Report B-WR9652 Rev.0.

Segment 6BW to 6CW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Transverse Splice Weld for Edge Panel Counter Weight Side for Segment 6BW to 6CW. Weld identified as OBW6A-001. The welder is identified as 068917. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2213-B-U2-FCM-1.

Segment 6BW to 6CW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Transverse Splice Weld for Edge Panel Cross Beam Side for Segment 6BW to 6CW. Weld identified as OBW6A-005. The welder is identified as 037743 in process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2213-B-U2-FCM-1.

Segment 6CW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Floor Beam Extension at PP 45 for Segment 6CW. Weld identified as SSD25-PP45-001/002, 005/006 and 009/010. The welder is identified as 053742. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2233. The parameters recorded by ZPMC QC were in compliance with WPS.

Segment 6CE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Floor Beam Extension at PP 45 for Segment 6CE. Weld identified as SSD27-PP45-145/146, 149/150 and 153/154. The welders is identified as 053742. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2233. The parameters recorded by ZPMC QC were in compliance with WPS.

Segment 6BW to 6CW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Transverse Splice Weld for Bottom Panel for Segment 6BW to 6CW. Weld identified as OBW6C-003. The welders is identified as 200676 and 220067. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2231T. It was observed that the root gap was

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

exceeding the requirement of WPS thus ZPMC QC was having Welding Repair Report B-WR9652 Rev.0.

Segment 6AW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Counter Weight connecting plate for the Segment 6AW notice. Weld identified as OBW6F-004. The welder was identified as 037743. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-Tc-U4b-FCM-1.

Segment 6AW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Counter Weight connecting plate for the Segment 6AW notice. Weld identified as OBW6F-003. The welder was identified as 037743. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-Tc-U4b-FCM-1.

Segment CB5

This QA Inspector observed ZPMC personnel at CB5 connecting 6AW to 6AE deck panel FL3 extension to CB5 connection drilled splice plate placed all around the Cross Beam and match drilling is in progress at all the locations.

Segment 6AW

This QA Inspector observed ZPMC personnel at Segment 6AW Upper Chevron on PP 39 Turn of Nut is progress.

Segment 7AE to 6CE

This QA Inspector observed ZPMC personnel at 7AE to 6CE between PP 48 and PP 49 fit-up is in progress and segment to segment flame cutting for bevel preparation for Side Panel Cross Beam side.

Segment 6BE to 6CE

This QA Inspector observed ZPMC personnel at 6BE to 6CE between PP 43 and PP 44 U-Ribs to U-Ribs internal side splice plate installation was in progress for match drilling.

Segment 6AE

This QA Inspector observed ZPMC personnel at 6BE to 6CE between PP 43 and PP 44 U-Ribs to U-Ribs internal side splice plate installation was in progress for match drilling.

Segment 5BE to 5CE

This QA Inspector observed ZPMC personnel at 5BE to 5CE between PP 31 and PP 32 for Transverse Splice weld

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

for Deck Panel Ultrasonic Test (UT) is been performed by ZPMC.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

Inspected By:	Math, Manjunath	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer